



A new species of *Dizoniopsis* (Prosobranchia, Cerithiopsidae) from the Gulf of Guinea Islands

Una nueva especie de *Dizoniopsis* (Prosobranchia, Cerithiopsidae) de las islas del Golfo de Guinea

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ABSTRACT

A new species of *Dizoniopsis* from Príncipe, São Tomé and Annobon is described showing differences with other similar species.

RESUMEN

Se describe una nueva especie de *Dizoniopsis* de las islas de Príncipe, Santo Tomé y Annobón, mostrando sus diferencias con otras especies conocidas.

KEY WORDS: *Dizoniopsis*, Cerithiopsidae, Guinean Gulf, São Tomé, Annobon, new species.

PALABRAS CLAVE: *Dizoniopsis*, Cerithiopsidae, Golfo de Guinea, Santo Tomé, Annobón, nueva especie.

INTRODUCTION

The Cerithiopsidae of West Africa are scarcely known, except for the genus *Seila* A. Adams, 1861, revised by ROLÁN AND FERNANDES (1990) and ROLÁN AND PELORCE (2006).

In the literature regarding the Cape Verde Islands, ROLÁN (2005) found 4 names of European species of Cerithiopsidae, but these are supposed to be incorrect for the fauna of this archipelago. Among the 11 species treated in that work, only one had a name, being an endemic species recently described (ROLÁN AND FERNANDES, 1989).

GOFAS, PINTO AFONSO AND BRANDÃO (1985) recognized 7 undescribed species for Angola.

With reference to the islands of the Guinean Gulf, FERNANDES AND ROLÁN (1993) found in the literature 6 names of Cerithiopsidae mentioned for São Tomé: TOMLIN AND SHACKLEFORD (1914) recorded 4 Mediterranean taxa: 3 present in the European fauna and one which is a dubiously valid name; all of them probably are not present in São Tomé; TOMLIN (1928) described *Cerithiopsis thomensis* which, according to FERNANDES AND ROLÁN (1991), is a *Metaxia*.

In the collecting trips to the islands of the Guinean Gulf, material of a *Dizoniopsis* with a paucispiral protoconch was found. This is the subject of the present paper.

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TAXONOMIC PART

Family CERITHIOPSIDAE H. Adams and A. Adams, 1853

Genus *Dizoniopsis* Sacco, 1895

Type species: *Dizoniopsis bilineata* (Hörnes, 1848) (lectotype figured in LANDAU, LA PERNA AND MARQUET (2006, text figure 1).

Remarks: Good information on this genus can be found in LANDAU ET AL. (2006), although they employed only the genus name *Cerithiopsis* to designate all the species shown. These authors nevertheless mentioned some reasons that allow us to accept *Dizoniopsis* as a valid genus, based mainly on the presence of

two spiral rows per whorl. This character is mentioned as also appearing in *Joculator* Hedley, 1909 and in *Horologica* Laseron, 1956, which can be differentiated by other characters. Due to all of this, we use this genus name for the species here described which is very similar to the lectotype of the type species of the genus.

Dizoniopsis apexclarus spec. nov. (Figs. 1-10)

Type material: Holotype (Fig. 1) in the MNCN (15.05/47033). Paratypes in the following collections: AMNH (1 s); BMNH (1 s); MCZ (1 s); MNHN (1 s); USNM (1 s); ZSM (1 s); CJH (3 s); CER (10 s, 4 j), all from the type locality. Paratypes from other localities: São Tomé: Lagoa Azul: CER (21 s, 15 j or f). Príncipe Island: Santo Antonio: CER (3 s, 2 j). Annobon Island: San Antonio de Palé: CER (16 s, 50 j).

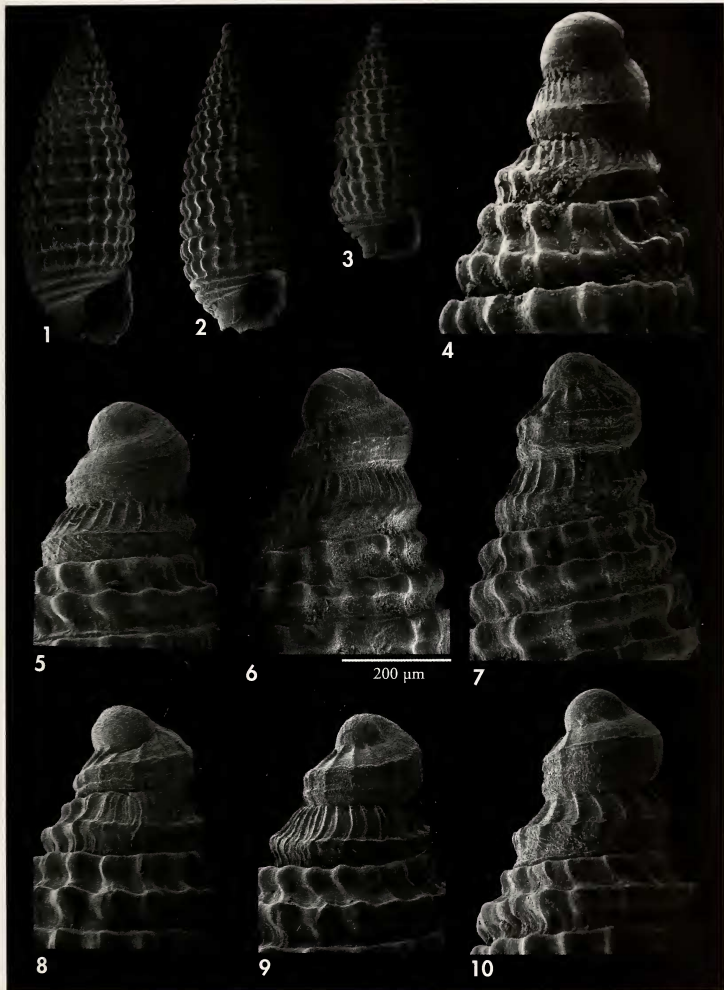
Other material examined (not designated paratypes due to their eroded condition): São Tomé: Praia Mutamba: 25 j and 28 f (CER); Praia Maria Emilia: 3 j (CER); Lagoa Azul: 10 s, 4 j and 9 f; Príncipe: Santo Antonio: 6 f (CER). Annobon: San Antonio de Palé: 20 s, 11 j, 4 f (CER).

Type locality: São Tomé Island, Praia Mutamba, 3-10 m.

Etymology: The specific name is formed by the words "apex" and the Latin name *clarus* "light" alluding to the protoconch, which is lighter in colour.

Description: Shell (Figs. 1-3) conical elongate, solid. Protoconch slightly variable (Figs. 4-10) with 2 or a little over 2 whorls, with a diameter of between 250-300 μm and a nucleus between 90 and 127 μm ; the microsculpture of the nucleus begins with few spiral threads, which continue for a short distance (less than one whorl); then, one spiral cord appears in the middle of the whorl, sometimes narrow, sometimes wider in some shells; at the same time, curved, axial, almost orthocline ribs (exceptionally opisthocline) appear on the upper part of the whorl. These ribs are very variable in number, between 8 and 15 in half a whorl. In the lower part of the first whorl, below the spiral cord, several nodulous irregular fine threads are present, in the second whorl axial oblique ribs appear. The colour of the protoconch is white.

Teleoconch with up to 8 whorls (adults apparently have from 5 whorls up), with two spiral cords per whorl, crossed by axial ribs which form nodules on the intersections. The lower cord begins as a continuation from the cord of the protoconch. The other one, in an adapical subsutural position, appears very close to the suture from the beginning, being smaller in the first whorl. In subsequent whorls, both cords are equal in width and size of the nodules, but from the fourth whorl downwards, the upper one is larger, and the nodules more elongate axially, being on the last whorl clearly larger than those on the lower portion. In the last whorl, there are three more cords towards the base, narrower than the previous ones and scarcely nodulose, except the uppermost one. Aperture ovoid, almost subquadrangular, due to



Figures 1-10. *Dizoniopsis apexclarus*. 1: holotype, 3.0 mm, Praia Mutamba, 5 m (MNCN); 2, 3: paratypes, San Antonio de Palé, Annobon, 2.9, 2.2 mm (CER); 4-6: protoconch of paratypes, São Tomé (CER); 7-10: protoconch of paratypes, Annobon (CER) (all protoconchs at same magnification).

Figuras 1-10. Dizoniopsis apexclarus. 1: holotipo, 3.0 mm, Praia Mutamba, 5 m (MNCN); 2, 3: paratipos, San Antonio de Palé, Annobón, 2.9, 2.2 mm (CER); 4-6: protoconchas de paratipos, Santo Tomé (CER); 7-10: protoconchas de paratipos, Annobón (CER) (todas las protoconchas con la misma ampliación).

the columella being straight; there is a visible columellar callous and a pointed profile of the aperture in the upper external part. Peristoma narrow, slightly undulating towards the end of the spiral cords. Siphonal canal open and short.

The colour of the shell is dark brown in live collected shells, lighter in first whorls of the teleoconch. Old shells are light brown or yellowish. The brown colour is not uniform being usually darker on the upper cord, in the spaces between the nodules and on the base.

Dimensions: holotype is 5.6 mm; some paratypes may reach 7 mm.

Distribution: Collected in three islands of the Guinean Gulf (Príncipe, São Tomé and Annobon) where this species is presumably endemic.

Remarks: We have found some differences between the protoconch of the shells from São Tomé and those from Annobon: those from São Tomé (Figs. 4-6) are a little more sharply pointed, the axial sculpture is formed by narrower and more numerous ribs; the spiral cord is

usually narrower. However, these differences could not indicate a complete specific differentiation and we prefer to keep both populations as being conspecific.

The most similar species is *Dizoniopsis bilineata* (Hoernes, 1848). The lectotype of this species has a broken protoconch, but it can be seen that it has axial and spiral sculpture, being probably multispiral. The shell figured as *D. bilineata* in GIANNUZZI-SAVELLI ET AL. (1999, fig. 76), has a short protoconch with the first whorl wider and two cords on the second whorl; these characters are different from the protoconch of the lectotype, and probably correspond to an undescribed Mediterranean species.

D. coppolae (Aradas, 1870), from the Mediterranean, has a larger shell, with cream colour.

D. herberti Jay and Drivas, 2001, from Reunion Island, is smaller and totally white; *D. herosae* Jay and Drivas, 2001, from the same locality, is also of white colour, both being endemic from a very distant region.

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